REMARKS

This application has been carefully reviewed in light of the Office Action dated September 20, 2004. Claims 1-37 remain in this application. Claims 1-3 are amended. Claims 1, 2, 3, 6, 7 and 8 are the independent Claims. It is believed that no new matter is involved in the amendments or arguments presented herein. Reconsideration and entrance of the amendment in the application are respectfully requested.

Art-Based Rejections

Claims 1-10, 14-16, 18-19, 21-22, 24, and 27-31 were rejected under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. § 103(a) over U.S. Patent No. 5,533,968 (Muni) and U.S. Patent No. 5,853,408 (Muni II). Claims 11-13, 17, 20, 23, 25-26, and 32-37 were rejected under 103(a) over Muni or Muni II. Applicant respectfully traverses the rejections and respectfully submits that the claims herein are patentable over the applied art of record in light of the arguments below.

The Muni Reference

The applied Muni reference discloses a catheter with a distal section which includes an outer tubular member secured to an inner tubular member over a length. (*See, Muni, abstract; Col. 2, lines 50-52*). According to Muni, the disclosed catheter includes a catheter shaft having an outer tubular member with an expandable distal section which expands elastically upon the introduction of fluid under a pressure within a first pressure range to a larger diameter and which contracts by elastic recoil upon the withdrawal of the inflation fluid. (*See, Muni, abstract; Col. 2, lines 50-52*).

The Muni II Reference

The applied Muni II reference is concerned with altering the mechanical properties of various angioplastic surgical devices in order to enhance their transportability through the vascular system by changing their operating temperature while situated within the body. (*See, Muni II, abstract; Col. 2 line 31 to Col. 2, lines 35-39*). According to Muni II, the temperature increases are utilized to increase flexibility or cause devices to assume certain configurations while a temperature decrease serves to increase stiffness and rupture strength. (*See, Muni II, Col. 2, line 31 to Col. 3, line 51*).

The Claims are Patentable Over the Cited References

The present application is generally directed to a balloon catheter used in medical treatment.

As defined by amended independent Claim 1, a balloon catheter includes a balloon and a plurality of tubular members. The balloon catheter has a structure in which a first tubular member has as one purpose thereof to allow a slidable guide wire to pass through the interior thereof. The first tubular member includes multiple layers including an outermost layer. The outermost surface of the first tubular member the outermost layer. The first tubular member is deployed passing through the interior of the balloon. The balloon and the outer surface of the first tubular member are fused concentrically in the vicinity of the distal end of the catheter. A Shore hardness of a material configuring the outermost surface of at least that portion of the first tubular member where the balloon is fused is lower than the Shore hardness of a material configuring the balloon.

As defined by independent Claim 6, a balloon catheter includes a balloon and a plurality of tubular members. The balloon catheter has a structure in which a first tubular member having as one purpose thereof to allow a slidable guide wire to pass through the interior thereof is deployed passing through the interior of the balloon. The balloon and the outer surface of the first tubular member are secured concentrically in the vicinity of the distal end of the catheter. The securing is done by thermally fusing the balloon and a material miscible with the first tubular member, or the balloon, and a material that chemically reacts with the first tubular member as a direct securing layer or as at least one layer when securing portion is made multi-layer. A Shore hardness of a material configuring the layer adjacent to the balloon is lower than the Shore hardness of a material configuring the balloon.

The applied references fail to disclose or suggest the above features of the claims of the present invention. In particular, the applied references fail to disclose or suggest "a first tubular member having as one purpose thereof to allow a slidable guide wire to pass through the interior thereof; said first tubular member is comprised of multiple layers having an outermost layer provided; and the outermost surface of said first tubular member is comprised of said outermost layer" or "said balloon and the outer surface of said first tubular member are fused concentrically in the vicinity of the distal end of said catheter" as required by the presently amended independent Claims 1-3.

However, the applied references fail to disclose or suggest "wherein said securing is done by thermally fusing said balloon and a material miscible with said first tubular member, or said balloon and a material that chemically reacts with said first tubular member, as a direct securing layer, or as at least one layer when securing portion is made multi-layer" or "said balloon and outer surface of said first

tubular member are secured concentrically in the vicinity of the distal end of said catheter," as required by independent Claims 6-8.

The applied Muni reference discloses a catheter with a distal section which includes an outer tubular member secured to an inner tubular member over a length (*See, Muni, abstract; Col. 2, lines 50-52*). According to Muni, the disclosed catheter includes a catheter shaft having an inner tubular member and a guide wire passing therein. (*See, Muni, Col. 7, lines 32-34*), and an outer tubular member with an expandable distal section and an inflatable member fused thereto. (*See, Muni, Col. 5, lines 62-65*). Accordingly Muni fails to disclose or suggest a balloon (inflatable member) and a tubular member containing a guide wire fused or secured at the distal section of the catheter as required by Claims 1-3 and 6-8. (*See, application, Fig. 1*).

The applied reference Muni II concerns altering the mechanical properties of various angioplastic surgical devices in order to enhance their transportability through the vascular system by changing their operating temperature while situated within the body. (*See, Muni II, abstract; Col. 2 line 31 to Col. 2, lines 35-39*). According to Muni II, the temperature increases are utilized to increase flexibility or cause devices to assume certain configurations while a temperature decrease serves to increase stiffness and rupture strength. (*See, Muni II, Col. 2, line 31 to Col. 3, line 51*).

Similarly, Muni II fails to disclose or suggest a balloon (inflatable member) and a tubular member containing a guide wire fused or secured at the distal section of the catheter as required by Claims 1-3 and 6-8 (*See, application, Fig. 1*).

Furthermore, neither Muni or Muni II fails to disclose or suggest the inner tubular member provided for guide wire be comprised of multiple layers as required by the presently amended independent Claims 1-3 (*See, application, Fig. 2).*

Moreover, neither of these references disclose or suggest that the portion of the inner tubular member be secured with the balloon be comprised of more than one layers as required by independent Claims 6-8. (*See, application, Fig. 3 and 5).*

Since the cited reference fails to disclose, teach or suggest the above features recited in independent Claims 1-3 and 6-8, these references cannot be said to anticipate nor render obvious the invention which is the subject matter of those claims.

Accordingly, independent Claims 1-3 and 6-8 are believed to be in condition for allowance and such allowance is respectfully requested.

The remaining claims depend either directly or indirectly from independent Claims 1, 2, 3, 6, 7 and 8 and recite additional features of the invention which are neither disclosed nor fairly suggested by the applied references and are therefore also believed to be in condition for allowance.

Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6809 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,

HOGAN & HARTSON L.L.P.

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By: _____

Dariush G. Adli
Registration No. 51,386
Attorney for Applicant(s)

500 South Grand Avenue, Suite 1900
Los Angeles, California 90071
Phone: 213-337-6700
Fax: 213-337-6701